

Amendment Under 37 C.F.R. § 1.111
Serial No.: 10/705,233
Sughrue Ref: Q78419

REMARKS

Claims 1-10 are all the claims pending in the application.

By way of this amendment, Applicants have amended claims 1, 2 and 4. In addition, Applicants submit herewith corrected Figure 6 labeled "PRIOR ART".

Turning to the substance of the Office Action, the Examiner has objected to the disclosure and the claims as containing a number of informalities. It appears that the Examiner does not have a clean copy of the specification because the misspellings noted by the Examiner do not exist in the specification. Applicants submit herewith a clean copy of the application for the Examiner's convenience.

Claims 1-10 are pending in the application. The Examiner has rejected claims 1-6, 7 and 9-10 under § 102(b) as being anticipated by Borsuk, et al. (U.S. Patent No. 4,666,238). In addition, the Examiner has rejected dependent claims 6 and 8 under § 103 as being unpatentable over Borsuk, et al. Applicants have amended claims 1 and 2 to clarify that the ferrule of the present invention includes a main body, a positioning member for positioning the optical fiber in such a position that a clearance is formed between the deepest portion of the hole of the main body and the leading end of the coil wire, and a leading end portion which serves as a convex lens. Further, these claims require that the convex lens, the main body and the positioning member be monolithically formed as a single unitary structure. Applicants' submit that the prior art does not teach or suggest this aspect of the invention.

More specifically, in Borsuk, et al., the shoulder portion of the member 72 is brought into contact with the stepped portion of the member 76 to place the optical fiber at the predetermined

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position. As is obvious from the drawings, the member 76 is provided as a separate member from the member 12 serving as the convex lens and the member 14 associated with the claimed main body. This fact is contrary to one of the goals of the invention which is to reduce the number of components and simplify the assembling operation. Based on the foregoing, it is believed independent claims 1 and 2 patentably distinguish over Borsuk, et al.

In addition, Applicants respectfully submit that Borsuk, et al. does not teach or suggest the features recited in dependent claims 6 and 8 which require that the refractive index adhesive be selected so as to be greater than the refractive index of the material forming the leading end portion of the ferrule.

The importance of this feature is discussed on page 9 of the specification. As the Examiner recognizes, Borsuk, et al. does not teach this feature of the invention. To the contrary, the reference specifically discloses that the adhesive 54 has a refraction index which is similar to both the glass of the optical fiber and the plastic material of the lens. Despite this teaching, the Examiner contends that this feature of the invention would have been obvious “since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.” *See*, paragraph 7 of the Office Action.

Applicants submit that the Examiner’s obviousness determination is simply unsupported. In fact, Borsuk, et al. teaches away from the invention since it discloses that the adhesive has the same refractive index as the lens for the purpose of preventing a high attenuation of the optical signal. The Examiner has failed to cited a single piece of prior art which suggests that it is


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optimal to choose an adhesive having a higher refractive index than that of the lens. Thus, the Examiner's reference to In re Boesch case is not relevant.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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WASHINGTON OFFICE

23373

CUSTOMER NUMBER

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AMENDMENTS TO THE DRAWINGS

Figure 6 is labeled "PRIOR ART".

Attachment: Replacement Sheet